Packet-Radio Digest   Wed, 21 Apr 93   Volume 93 : Issue 109

Today's Topics:
                      2 line satellite elements
                          Beginner (2 msgs)
                       Info on PackeTerm (2 msgs)
                   Internet port on packet (2 msgs)
                   Internet to Packet Gateways ???
                            KISS for KPC
method for improving packet thruput in noisy channels (well, maybe (3 msgs)
 method for improving packet thruput in noisy channels (well, maybe)
                   PacketCluster-Sysops welcome!
                         PMP/Baycom Modems
          WANTED: TCM3105 chips, small quantities (2 msgs)

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 21 Apr 93 21:16:31 GMT
From: news-mail-gateway@ucsd.edu
Subject: 2 line satellite elements
To: packet-radio@ucsd.edu

Does anyone know if/where 2 line elements sets for satellite tracking
are available via anonymous ftp? I understand that there are different
formats of 2 line elements as I have two different programs on different
computers I'd like to try (Traksat under MSDOS and another satellite
tracker for the Amiga) so I guess I'd need to know if a conversion
program exists or which type of elements are available where.

I'm primarily interested in tracking amateur and amateur-related
satellites (Mir and the shuttles when there up with SAREX) but would
like for curiousity's sake a more complete database which includes other
satellites of interest like NOAA, HST, etc.

Private email responses appreciated.
--
_____
Dan Roman GEnie: D.ROMAN1 Internet: roman@tix.timeplex.com //
American Homebrewers Association member   Only AMIGA! \X/
Amateur call sign N2MFC AX.25 Packet: N2MFC@N2IMC.#NNJ.NJ.USA.NA
Amateur radio TCP/IP: N2MFC@W2NV.ampr.org Station: 40 55 39N 73 59 52W ~

Date: 20 Apr 93 23:26:00 GMT
From: gumby!destroyer!iunet!hal9k!arbeitsgruppe.nld@yale.arpa
Subject: Beginner
To: packet-radio@ucsd.edu

From: nld@uipmzb.PHysik.uni-mainz.DE (Arbeitsgruppe NLD)
Date: 20 Apr 93 13:46:27 GMT
Organization: UCSD Usenet Gateway
Message-ID: <9304201346.AA01230@uipmzb.physik.uni-mainz.de>

I am a beginner in packet-radio.
What to do, to start best?
What's about packet-radio in germany?
Tip's please!

W. Ebert-Lucchini

 . R110B:Wnet HAL_9000

| HAL 9000 BBS: QWK-to-Usenet gateway | Four 14400 v.32bis dial-ins |
| FREE Usenet mail and 200 newsgroups! | PCBoard 14.5aM * uuPCB * Kmail |
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| Member of EFF, ASP, ASAD * 1500MB disk * Serving Ann Arbor since 1988 |

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Date: 20 Apr 93 21:34:00 GMT
From: gumby!destroyer!iunet!hal9k!lawrence.chen@uunet.uu.net
Subject: Info on PackeTerm
To: packet-radio@ucsd.edu

From: Lawrence_Chen@lhaven.UUmh.Ab.Ca (Lawrence Chen)
Message-ID: <Lawrence_Chen.2gmn@lhaven.UUmh.Ab.Ca>
Date: 19 Apr 93 13:00:00 MDT
Organization: Lunatic Haven BBS

Hello Amiga Packet people.

I'm looking to break into Packet myself....and I was reading through CQ,
and saw an ad for PackeTerm.

Has anybody out there used this program? If so, can they post or send me a
quick review of the product?

I'd also like pointers to other Packet related products for the Amiga.

aTdHvAaNnKcSe

-- Via DLG Pro v0.995

"Just a Crazy Engineer with an Amiga and an HP48sx"   - The Dreamer
Email: dreamer@lhaven.uumh.ab.ca or "Lawrence Chen" @ 1:134/3002

```
PHONE: +1 403 526 6019       FAX: +1 403 529 5102       CIS: 74200,2431
Lunatic Haven BBS (1:134/3002):      +1 403 526 6957 (14,400 HST/v.32bis)
Lunatic Haven BBS (UUCP):            +1 403 526 5035 (Telebit Worldblazer)
Praxis Society K12 BBS (1:134/3003): +1 403 529 1610 (Telebit T2500SA)
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Date: 20 Apr 93 21:36:00 GMT
From: gumby!destroyer!iunet!hal9k!avram.joshua.peters@yale.arpa
Subject: Internet port on packet
To: packet-radio@ucsd.edu

From: apeters2@ux4.cso.uiuc.edu (Avram Joshua Peters)
Date: Mon, 19 Apr 1993 22:40:45 GMT
Message-ID: <C5r5nx.8yB@news.cso.uiuc.edu>
Organization: University of Illinois at Urbana



I think the subject line says it all.  Is there a
way to get into internet or any other worldwide or
nation-wide "land-line type" net?

Avram
n9oni
apeters2@ux4.cso.uiuc.edu
---
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Date: Wed, 21 Apr 1993 11:54:23 GMT
From: nsisrv!news1.gsfc.nasa.gov!trust!charlson@ames.arpa
Subject: Internet to Packet Gateways ???
To: packet-radio@ucsd.edu

I am looking for some Internet to Packet gateways. I have been having
problems reaching some of my firends on packet and would like to try
some of these gateways as an alternative. Any info would be appreciated.
Please reply to the address below. THANKS !!!

Deane R. Charlson   charlson@trust.gsfc.nasa.gov
NASA   dcharlson@zaphod.gsfc.nasa.gov
Goddard Space Flight Center Phone: (301) 286-7883
Greenbelt, MD 20771   Fax: (301) 286-7538

Date: 21 Apr 1993 16:15:48 -0700
From: data.nas.nasa.gov!taligent!apple.com!apple.com!not-for-mail@ames.arpa
Subject: KISS for KPC
To: packet-radio@ucsd.edu

I just got a KPC TNC, it's been upgraded to KPC-2 ROMs. If anyone could point
me in the right direction to get KISS working on this TNC I'd appreciate it.
I want to try and start plaing around w/ TCP/IP.

Thanks
Jerry Godes
N1NQP
jerryg@apple.com

Date: 20 Apr 93 21:34:00 GMT
From: gumby!destroyer!iunet!hal9k!mark.g..salyzyn@yale.arpa
Subject: method for improving packet thruput in noisy channels (well, maybe
To: packet-radio@ucsd.edu

From: mark@ve6mgs.ampr.org (Mark G. Salyzyn)
Organization: ADEC Systems Inc.
Date: Mon, 19 Apr 93 19:14:12 GMT
Message-ID: <1993Apr19.191412.7651@ve6mgs.ampr.org>

wa2ise@cbnewsb.cb.att.com (robert.f.casey) writes:

>Better packet reception
> . . .
>Suppose the receiving TNC stores the bad packet. and if the next try is
>also bad, store it.

FEC of a form. I would even go simpler than that, I would take *any*
differences and try them all (why look just for pairs that match). The only
(slight) problem is that you are increasing the chances of receiving a packet
full of errors as if it was correct (Data wrong, CRC sez not). There are
also cases of bit slipping too (loose a bit) that could get your mind
wandering.

I did something like this with passall-on and let the confuser reconstruct
traffic on the channel from the ascii streams. I did *not* see any improvement
of copy (and I took a performance hit on the box as it was slow already), but
that is probably due to the fact I was monitoring rather than being an active
participant (and the fact I did not have access to the CRC) ...

Now, the `technical' problem. The TNC has NO idea what the CRC is, since
the Synchronous UART strips that off before presenting it to the CPU. It is
possible to tell the UART to not do the CRC stuff, but that is a big change
to the software operation of the TNC (Any Z-80 based TNC). I believe the
KAM's processor has good access to the CRC, but with their support, and
our lack of source code ...

Ok, who is going to add this to their KISS firmware first?

Ciao, 73 de VE6MGS/Mark -sk-

. R110B:Wnet HAL_9000

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Date: 20 Apr 93 22:24:00 GMT
From: gumby!destroyer!iunet!hal9k!dana.h..myers@yale.arpa
Subject: method for improving packet thruput in noisy channels (well, maybe
To: packet-radio@ucsd.edu

From: dana@lando.la.locus.com (Dana H. Myers)
Message-ID: <1993Apr19.230057.169808@locus.com>
Organization: Locus Computing Corporation, Los Angeles, California
Date: Mon, 19 Apr 93 23:00:57 GMT

In article <daves-190493124744@129.228.20.182> daves@xetron.com (Dave Steele) w
>In article <1993Apr19.033253.18601@cbfsb.cb.att.com>,
>wa2ise@cbnewsb.cb.att.com (robert.f.casey) wrote:
>>
>>
>> Better packet reception
>>
>> How about this method for improving packet reception (probably has been
>> done, but here goes anyway). Sometimes, when noise causes a few errors
>> in a received packet, the CRC rejects the packet and tells the transmitting
>> station to resend it. If the noise persists, you are in for a lot of
>> retries, and thruput is bad. Let's say, for example, that the received
>> packets have about 5 errors.
>>
>> Suppose the receiving TNC stores the bad packet. and if the next try is
>> also bad, store it. And if the third try is also bad, you could compare
>> all three, byte by byte, and look for where they differ.
>...
>
>If the error rate is relatively low, you probably don't need to get the
>third try. Just create a third packet, trying data from both of the faulty
>packets until the CRC checks out.
>

It really depends how strong the CRC is. You could easily get an erroneous
packet which checks out against the CRC. Furthermore, the kinds of errors
you get may cause the receiver to lose sync with the incoming data and
not receive anything at all until it sees another flag. You can't just
store a fragmented piece of a packet without a lot of special effort.

FEC packet would work more easily with less magic; you just program your
TNC to send every packet twice. Heck, rather than using a long TXD you
could a very short TXD and send the packet twice. The TX Delay time is
simply wasted time to let someone's receiver warm up. Sending the
packet twice would give slow receivers a chance to warm up and give
the quick receivers (i.e. people using DCD State Machines) two chances
at reading a noisy a packet....

Dana

--
* Dana H. Myers KK6JQ | Views expressed here are *
* (310) 337-5136 | mine and do not necessarily   *
* dana@locus.com DoD #466 | reflect those of my employer
     *
* This Extra supports the abolition of the 13 and 20 WPM tests *

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Date: 21 Apr 93 12:52:21
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: method for improving packet thruput in noisy channels (well, maybe)
To: packet-radio@ucsd.edu

Your proposed scheme is about a million generations old and is the worst
of all possible error corrections WITH THE EXCEPTION that it could be
implemented only by rewriting the software in TNC's. I am at a loss
as to how this could be efficiently done since one of the major difficulties
with bad packets is that you lose framing when you lose a bit (bit stuffing,
etc. can byte you in the butt). FEC produces MUCH stronger error correction
at the cost of having to change hardware.

Bob
--

```
--------------------------------------------------------------------------
Robert W. McGwier                  | n4hy@ccr-p.ida.org
Center for Communications Research | Interests: amateur radio, astronomy,golf
Princeton, N.J. 08520              | Asst Scoutmaster Troop 5700, Hightstown
```

Date: 21 Apr 1993 12:53:42 GMT
From: usc!howland.reston.ans.net!ira.uka.de!math.fu-berlin.de!news.belwue.de!
news.uni-stuttgart.de!gross@network.UCSD.EDU
Subject: PacketCluster-Sysops welcome!
To: packet-radio@ucsd.edu

I would like to invite all Sysops of PacketCluster nodes to our email
discussion list which discusses all about the PacketCluster Software.

What you have to do to get in it ?

First of all - you need to have an email adress.

Send a message to listserv@ifsws1.sozialforschung.uni-stuttgart.de
with a message body of "help" - this is to show you the commands
this mailing list server supports.
Then, send a second message with a message body of
"subscribe packetcluster firstname lastname (callsign)".
(Please note that it is _message body_ and not _subject_!)

so if you are Dick Newell and your callsign is AK1A,
the line would be:

subscribe packetcluster Dick Newell (AK1A)

Also there is an anonymous FTP server to supply
PacketCluster-related software, information files and databases.
The FTP server also has a directory for G8BPQ and contesting stuff.

FTP to 141.58.162.1, login as "ftp", choose any password.

Then "cd /pub" - that's where the things are.
Feel free to upload files to /pub/uploads, don't forget to leave a *.txt file
to describe your upload.

73! Frank DL1SBR
--
Frank Grossmann (DL1SBR)
Internet: gross@ifsws1.sozialforschung.uni-stuttgart.de

Packet Radio: DL1SBR@DB0SDX.DEU.EU
Stuttgart University, institute for social research

Date: 21 Apr 1993 12:31:38 GMT
From: usc!zaphod.mps.ohio-state.edu!saimiri.primate.wisc.edu!zazen!
news.uwsuper.edu!hp.uwsuper.edu!pmcgilla@network.UCSD.EDU
Subject: PMP/Baycom Modems
To: packet-radio@ucsd.edu

Some notes from experiments last night, after I plugged in a breakout box with a
light for each line.

Running the baypac program used for calibration, I note the following when
testing for audio level; DTR is held high and CTS & RTS pulse high upon init.
When open squelch is detected, CTS goes high.

When running the baycom program, best I can determine is that the DTR line goes
stays high and the CTS line goes high when receiving audio. Note, the baycom
program does display received packets.

Finally, using my own test program, which turns on DTR and then monitors the
CTS line, the CTS line seems to go up and down with received audio or open
squelch.

So, got any ideas, I did receive two replies, which were non-conclusive. I
wonder if the design has changed somewhere between the original and the
ones sold by Tigertronics. I also still wonder about that connection too
pin 2.

--
Patrick L. McGillan
Computer Systems Specialist
University Of Wisconsin   Ph: (715) 394-8191
Superior, Wisconsin   pmcgilla@uwsuper.edu

Date: 20 Apr 93 22:23:00 GMT
From: gumby!destroyer!iunet!hal9k!andrew.payne@yale.arpa
Subject: WANTED: TCM3105 chips, small quantities
To: packet-radio@ucsd.edu

From: payne@crl.dec.com (Andrew Payne)
Message-ID: <1993Apr20.004418.11548@crl.dec.com>
Organization: DEC Cambridge Research Lab
Date: Tue, 20 Apr 1993 00:44:18 GMT

Does anyone know if a source for the TCM3105 modem chips (as used in the
Baycom and my PMP modems)? Ideally, something that is geared toward
hobbyists: small quantity, mail order, etc.

For years, we've been buying them from a distributor (Marshall) by the
hundreds for PMP kits. But orders have dropped to the point where we can
no longer afford to offer this service. And all of the distributors I've
checked have some crazy minimum order ($100, or so).

I'd like to find a source for those still interested in building PMP kits.
Any suggestions?

--
Andrew C. Payne
DEC Cambridge Research Lab

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Organization: DEC Cambridge Research Lab
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End of Packet-Radio Digest V93 #109
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